Attorney Docket No.: 039592-5089-US

The claimed invention is:

1. A stabilized amido acid composition comprising an effective stabilizing amount of an antioxidant and an amido acid of formula I or II:

$$\mathbb{R}^{5}$$
 \mathbb{N}
 \mathbb{R}^{2}
 \mathbb{R}^{3}
 \mathbb{R}^{4}
 \mathbb{O}
 \mathbb{O}
 \mathbb{O}
 \mathbb{O}
 \mathbb{O}
 \mathbb{O}

wherein R^1 is selected from C_1 - C_{22} alkyl, C_2 - C_{22} alkenyl, C_2 - C_{22} alkynyl, C_3 - C_{22} cycloalkyl, and C_6 - C_{14} aryl;

 R^2 and R^5 are each independently selected from hydrogen, C_1 - C_{22} alkyl, C_2 - C_{22} alkenyl, C_2 - C_{22} alkynyl, C_3 - C_{22} cycloalkyl, C_6 - C_{14} aryl, and where in formula II, R^2 and R^5 can together with the nitrogen carrying them form a C_3 - C_{10} heterocycle;

 R^3 and R^4 are each independently selected from hydrogen, C_1 - C_{10} alkyl, C_2 - C_{10} alkenyl, C_2 - C_{10} alkynyl, C_3 - C_{10} cycloalkyl, C_6 - C_{10} aryl and where R^3 and R^4 can together with the carbon carrying them form a C_3 - C_{10} cycloalkyl; and

n is an integer from 0 to 20.

2. The composition of claim 1,

wherein R^1 is selected from C_5 - C_{15} alkyl, C_5 - C_{15} alkenyl, C_5 - C_{15} alkynyl, C_5 - C_{15} cycloalkyl, and C_6 - C_{14} aryl;

 R^2 and R^5 are each independently selected from hydrogen, C_5 - C_{15} alkyl, C_5 - C_{15} alkenyl, C_5 - C_{15} alkynyl, C_5 - C_{15} cycloalkyl, C_6 - C_{14} aryl, and where in formula II, R^2 and R^5 together with the nitrogen carrying them can form a C_3 - C_{10} heterocycle;

 R^3 and R^4 are each independently selected from hydrogen, C_1 - C_5 alkyl, C_2 - C_5 alkenyl, C_5 - C_5 alkynyl, C_3 - C_6 cycloalkyl, C_6 - C_{10} aryl and where R^3 and R^4 can together with the carbon carrying them form a C_3 - C_6 cycloalkyl; and

n is an integer from 0 to 10.

3. The composition of claim 1,

wherein R^1 is a C_s - C_{15} alkyl; R^2 and R^5 are each hydrogen or C_s - C_{15} alkyl; R^3 and R^4 are each hydrogen; and n is an integer from 2 to 10.

- 4. The composition of claim 1, wherein the antioxidant is a phenolic antioxidant or mixture of phenolic antioxidants.
- 5. The composition of claim 1, wherein the antioxidant is selected from 1,3,5-trimethyl-2,4,6-tris (3,5-di-tert-butyl-4-hydroxybenzyl) benzene, tetrakis(methylene (3,5-di-tert-butyl-4-hydroxyhydrocinnamate)) methane, and butylated hydroxytoluene (BHT).
- 6. The composition of claim 1, wherein the stabilized amido acid composition does not exhibit visible discoloration after heating it for about 72 hours at 100°C.

- 7. The composition of claim 1, wherein the stabilizing effective amount of antioxidant ranges from about 0.001 to about 2% by weight.
- 8. The composition of claim 1, wherein the stabilized amido acid composition is a liquid, a liquid melt, or a solution.
- 9. A process for preparing a stabilized amido acid composition comprising admixing a stabilizing effective amount of an antioxidant and an amido acid of formula I or formula II:

$$\mathbb{R}^{5}$$
 \mathbb{N}
 \mathbb{R}^{3}
 \mathbb{R}^{4}
 \mathbb{O}
 \mathbb{N}
 $\mathbb{$

wherein R^1 is selected from C_1 - C_{22} alkyl, C_2 - C_{22} alkenyl, C_2 - C_{22} alkynyl, C_3 - C_{22} cycloalkyl, and C_6 - C_{14} aryl;

 R^2 and R^5 are each independently selected from hydrogen, C_1 - C_{22} alkyl, C_2 - C_{22} alkenyl, C_2 - C_{22} alkynyl, C_3 - C_{22} cycloalkyl, C_6 - C_{14} aryl, and where in formula II, R^2 and R^5 can together with the nitrogen carrying them form a C_3 - C_{10} heterocycle;

 R^3 and R^4 are each independently selected from hydrogen, C_1 - C_{10} alkyl, C_2 - C_{10} alkenyl, C_2 - C_{10} alkynyl, C_3 - C_{10} cycloalkyl, C_6 - C_{10} aryl and where R^3 and R^4 together with the carbon carrying them form a C_3 - C_{10} cycloalkyl, and

n is an integer from 0 to 20.

- 10. The process of claim 9, wherein the amido acid is in a liquid state, a molten state, or in solution when admixed with the antioxidant.
- 11. The process of claim 9, wherein the antioxidant is selected from 1,3,5-trimethyl-2,4,6-tris (3,5-di-tert-butyl-4-hydroxybenzyl) benzene, tetrakis(methylene (3,5-di-tert-butyl-4-hydroxyhydrocinnamate)) methane, and butylated hydroxytoluene (BHT).
- 12. The process of claim 9, wherein the effective stabilizing amount of the antioxidant ranges from about 0.001 to about 2% by weight.
- 13. A process for preparing an amido phenyl ester salt comprising reacting in a reaction vessel the following:
 - (i) an antioxidant-stabilized amido acid; and
 - (ii) a phenyl alcohol salt, under conditions sufficient to form an amido phenyl ester salt, wherein the antioxidant-stabilized amido acid is of a formula I or II

$$\begin{array}{c|c} O & R^3 & R^4 \\ \hline \\ R^1 & R^2 & OH \end{array} \tag{I}$$

where R^1 is selected from C_1 - C_{22} alkyl, C_2 - C_{22} alkenyl, C_2 - C_{22} alkynyl, C_3 - C_{22} cycloalkyl, and C_6 - C_{14} aryl;

 R^2 and R^5 are each independently selected from hydrogen, C_1 - C_{22} alkyl, C_2 - C_{22} alkenyl, C_3 - C_{22} cycloalkyl, C_6 - C_{14} aryl, and where in formula II, R^2 and R^5 can together with the nitrogen carrying them form a C_3 - C_{10} heterocycle;

 R^3 and R^4 are each independently selected from hydrogen, C_1 - C_{10} alkyl, C_2 - C_{10} alkenyl, C_2 - C_{10} alkynyl, C_3 - C_{10} cycloalkyl, C_6 - C_{10} aryl and where R^3 and R^4 can together with the carbon carrying them form a C_3 - C_{10} cycloalkyl; and

n is an integer from 0 to 20; and

wherein the amido phenyl ester salt is of formula (III) or (IV):

$$\mathbb{R}^{1} \xrightarrow{\mathbb{R}^{3}} \mathbb{C} \xrightarrow{\mathbb{R}^{4}} \mathbb{C} \xrightarrow{\mathbb{C}^{4}} \mathbb{C} \xrightarrow{\mathbb{C}^{4}}$$

$$\mathbb{R}^{5} \stackrel{\mathbb{R}^{2}}{\longleftrightarrow} \mathbb{R}^{3} \stackrel{\mathbb{R}^{4}}{\longleftrightarrow} \mathbb{R}^{5} \stackrel{\mathbb{R}^{5}}{\longleftrightarrow} \mathbb{R}$$

where Y is selected from $SO_3^-M^+$, $CO_2^-M^+$, $SO_4^-M^+$, and $N^+(R^6)_3X$;

M is selected from hydrogen, ammonium and alkali metal atom;

R⁶ in each instance is a C₁-C₄ alkyl group; and,

X is a halide, hydroxide, methylsulfate, or acetate ion.

14. The process of claim 13, wherein the antioxidant-stabilized amido acid composition is in a liquid state, or a liquid melt state.

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15. The process of claim 13, wherein the amido acid composition contains an antioxidant selected from 1,3,5-trimethyl-2,4,6-tris (3,5-di-tert-butyl-4-hydroxybenzyl) benzene, tetrakis(methylene (3,5-di-tert-butyl- 4-hydroxyhydrocinnamate)) methane and butylated hydroxytoluene (BHT).

16. The process of claim 13, wherein the stabilizing effective amount of antioxidant ranges from about 0.001 to about 2% by weight.